

**REMARKS**

**Summary of the Office Action**

Claims 1, 2, 10 and 17 stand objected to because of minor informalities.

Claims 1, 2, 5-7, 16, 17 and 21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,712,841 to Opheij et al. in view of U.S. Patent No. 6,584,060 to Oohchida et al.

Claims 3, 8 and 18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Opheij et al. in view of Oohchida et al. in further view of U.S. Patent No. 6,637,657 to Barkan et al.

Claims 4, 9 and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Opheij et al. in view of Oohchida et al. in further view of JP 09-213989 to Sakakibara et al.

Claim 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Opheij et al. in view of Oohchida et al. in further view of U.S. Patent No. 4,926,036 to Maeda.

Claims 10, 11 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Opheij et al. in view of Oohchida et al. in further view of U.S. Patent No. 6,363,047 to Yamashita.

Claims 12 and 23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Opheij et al. in view of Oohchida et al. in further view of Yamashita and in further view of U.S. Patent No. 6,404,709 to Kouno.

Claim 13 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Opheij et al. in view of Oohchida et al. in further view of Yamashita and in further view of U.S. Patent No. 6,637,657 to Barkan et al.

Claim 14 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Opheij et al. in view of Oohchida et al. in further view of Yamashita and in further view of JP 09-213989 to Sakakibara et al.

#### **Summary of the Response to the Office Action**

Claims 1, 2, 6, 7, 10, 16, 17 and 21 have been amended to more particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Accordingly, claims 1-19 and 21-23 are presently pending for consideration.

#### **The Claims Do Not Contain Objectionable Matter**

Claims 1, 2, 10 and 17 stand objected to because of minor informalities. By way of the foregoing amendment, these minor informalities have been addressed in accordance with the Examiner's suggestions. Accordingly, Applicants respectfully request that the objection to claims 1, 2, 10 and 17 be withdrawn.

**All Claims Comply With 35 U.S.C. §103(a)**

Claims 1, 2, 5-7, 16, 17 and 21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,712,841 to Opheij et al. in view of U.S. Patent No. 6,584,060 to Oohchida et al. Claims 10, 11 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Opheij et al. in view of Oohchida et al. in further view of U.S. Patent No. 6,363,047 to Yamashita. To the extent the Examiner considers these rejections to apply to newly amended independent claims 1, 6, 10, 16 and 21, they are traversed as being based on a reference that neither describes nor suggests the novel combination of features now recited in amended independent claims 1, 6, 10, 16 and 21. For example, claims 1 and 10 now recite, amongst other features, a lead frame package in combination with “photo detector positioned in the second path (or diffraction path) to directly receive diffracted beams from the hologram optical element.” In another example, claims 6, 16 and 21 now recite, amongst other features, “the photo detector directly receives diffracted beams from the hologram optical element.”

Applicants respectfully submit that Opheij et al. fails to teach or suggest a “photo detector positioned in the second path (or diffraction path) to directly receive diffracted beams from the hologram optical element” or that “the photo detector directly receives diffracted beams from the hologram optical element.” In contrast, the diffracted beams 6 of Opheij et al. are reflected by a mirror 27 to a photo detector 21. The photo detector 21 of Opheij et al. does not directly receive the diffracted beams but rather indirectly receives diffracted beams via the mirror 27. Thus, Opheij et al. fails to describe or suggest each and every feature or the combination of features

recited in independent claims 1, 6, 10, 16 and 21, as amended. In addition, Applicants respectfully submit that Oohchida et al. has the same deficiency of not teaching or suggesting a photo detector that directly receives diffracted beams. Like Opheij et al., the photo detector 41 of Oohchida et al. indirectly receives diffracted beams via an optical path separator 41. Further, Applicants respectfully submit that Yamashita does not cure the deficiencies of the Opheij et al. and Oohchida et al. since Yamashita does not teach or suggest a photo detector that directly receives diffracted light beams.

For at least these reasons, Applicants respectfully submit that Opheij et al., Oohchida et al. and Yamashita, either separately or combined, do not teach or suggest all of the features recited in claims 1, 6, 10, 16 and 21, as amended. Accordingly, Applicants respectfully request that the 35 U.S.C. § 103(a) rejections of amended independent claims 2, 5, 7, 11, 15 and 17 based on Opheij et al., Oohchida et al. and/or Yamashita be withdrawn. Further, Applicants respectfully request that 5 U.S.C. § 103(a) rejections of dependent claims 1, 6, 10, 16 and 21 based on Opheij et al., Oohchida et al. and/or Yamashita be withdrawn at least because of their dependence on their respective independent claims, as amended, and for the additional features that they recite.

Claims 3, 8 and 18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Opheij et al. in view of Oohchida et al. in further view of U.S. Patent No. 6,637,657 to Barkan. Claims 4, 9 and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Opheij et al. in view of Oohchida et al. in further view of JP 09-213989 to Sakakibara et al. Claim 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Opheij et al. in view of Oohchida et

al. in further view of U.S. Patent No. 4,926,036 to Maeda. Claims 12 and 23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Opheij et al. in view of Oohchida et al. in further view of Yamashita and in further view of U.S. Patent No. 6,404,709 to Kouno. Claim 13 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Opheij et al. in view of Oohchida et al. in further view of Yamashita and in further view of U.S. Patent No. 6,637,657 to Barkan et al. Claim 14 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Opheij et al. in view of Oohchida et al. in further view of Yamashita and in further view of JP 09-213989 to Sakakibara et al.

To the extent that the Examiner may consider these rejections to still apply, Applicants respectfully assert that the 35 U.S.C. § 103(a) rejections based upon Opheij et al. in view of Oohchida et al. together with either Barkan et al., Sakakibara et al. or Maeda do not cure the deficiencies of Opheij et al. in view of Oohchida et al. as discussed above with regard to independent claims 1, 6, 10, 16 and 21, as amended. Applicants also respectfully assert that the 35 U.S.C. § 103(a) rejections based upon Opheij et al. in view of Oohchida et al. in further view of Yamashita together with either Kouno, Barkan et al. or Sakakibara et al. do not cure the deficiencies of Opheij et al. in view of Oohchida et al. in further view of Yamashita as discussed above with regard to independent claims 1, 6, 10, 16 and 21, as amended. Further, Applicants respectfully assert that claims 3, 4, 8, 9, 12, 13, 14, 18, 19, 22 and 23 are allowable at least because of their dependence on their respective independent claims, as amended, and for the

additional features that they recite. Accordingly, Applicants respectfully request that the 35 U.S.C. § 103(a) rejections of claims 3, 4, 8, 9, 12, 13, 14, 18, 19, 22 and 23 be withdrawn.

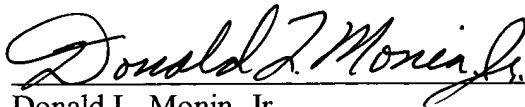
**CONCLUSION**

In view of the foregoing, Applicants respectfully request reconsideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of the response, the Examiner is invited to contact the Applicants' undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,  
**MORGAN, LEWIS & BOCKIUS LLP**

Dated: October 25, 2004

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